differential to remove essentially all the impurities and reducing the number of diafiltration steps.

Remarks/Arguments

This amendment is in response to the Office Action dated August 18, 2004.

Claims 1-6, 8, 10-20, 22-28, 30 and 32-34 remain in this application

Claims 1, 3, 5, 8,10,15, 17, 19-20 and 23-28, 30 and 31-34 have been rejected under 35 USC 103(a) over Clark '133 in view of Root "564.

The Office Action states that Clark teaches all the elements of the claims except for the constant pressure differential. Root is cited for the use of a valve on its device. The Office Action states that it would have been obvious to use the valve of Root in the device of Clark to apply a constant pressure differential. Applicant disagrees.

The valve of Root is used to prevent high pressure excursions which would otherwise rupture the membranes. Root then suggests a specific placement of this valve, adjacent passage so that all the wells have the advantage of the valve equally. It fails to teach or suggest to one of ordinary skill in the art that the valve imparts a constant pressure differential, only that it prevents a pressure excursion from occurring in any and all of the wells.

As such the combination of the references fails to teach or suggest the present invention. It merely suggests that one can prevent a pressure excursion from occurring in the wells and if properly located can do so in all the wells. It does not teach or suggest the ability to use a constant pressure differential.

As to claims 3, 25, 26 and 30, the Office Action states that it have been obvious to regulate the pressure differential within the claimed range to obtain the desired rate of ultrafiltration. As

discussed above, the art is silent on the use of a constant pressure differential and is also silent on the preferred level of vacuum to use in doing so. There is no teaching or suggestion or motivation in the references to use a constant pressure differential, never mind one within the claimed range and therefore the claims are believed to be allowable over the rejection.

As to claim 5 it is argued in the Office Action that the use of a syringe would render obvious the use of a constant pressure differential within the claimed range. There is no teaching or suggestion or motivation in the references to use a constant pressure differential, never mind one within the claimed range and therefore the claims are believed to be allowable over the rejection.

Additionally, claims23-25, 27and 34 have a further limitation that the use of the constant pressure differential allows one to reduce or eliminate the need to diafilter the recovered sample in order to eliminate the salts and other small impurities in the system.

Neither Clark nor Root teach or suggest a process for recovering proteins, nucleic acids and the like using a constant pressure differential and doing so either with the reduced or eliminated need for a diafiltration step. Neither is concerned with the removal of salts or other contaminants as is the case in the present invention. What has been unexpectedly discovered in the present invention is that one can remove such salts and other contaminants from a solution often without the need to diafilter at all. This provides the user with a purer sample in shorter time.

Such an advantage was neither known nor inherent in the prior art and provides one with a significant advantage in the art of recovering nucleic acids and proteins. In fact, the cited references describe the need for "a series... of washing steps to flush away the unreacted or unbound material" and that the use of the vacuum manifold "enhances " one's ability to do these washing steps (Root, Column 9, lines 12-16), or the need for "extensive washing" (Clark, Col 2, line 1).

As such it is believed that the present claims are in condition for allowance.

Claims 2, 4, 6, 11-14, 16, 18 and 22 are indicated as being allowable.

Reconsideration and allowance of the remaining claims is respectfully requested in view of the foregoing amendment and remarks.

Respectfully submitted,

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